

PATENT APPLICATION

**RESPONSE UNDER 37 CFR §1.116
EXPEDITED PROCEDURE
TECHNOLOGY CENTER ART UNIT 3656**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Werner STEPRATH et al.

Group Art Unit: 3656

Application No.: 10/574,011

Examiner: W. JOYCE

Filed: August 1, 2006

Docket No.: 127536

For: MANUALLY OPERATED ELECTRIC CONTROL DEVICE

REQUEST FOR RECONSIDERATION AFTER FINAL REJECTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the March 26, 2010 Office Action, the period for response having been extended one month by the attached Petition for Extension of Time, reconsideration of the rejections is respectfully requested in light of the following remarks.

The Office Action rejects claims 1-6, 10 and 11 under 35 U.S.C. §103(a) over U.S. Patent No. 5,313,853 to Olmsted et al. ("Olmsted") in view of U.S. Patent No. 2,104,101 to Rosenbaum; and rejects claims 7-9 and 12 under 35 U.S.C. §103(a) over Olmsted, in view of Rosenbaum, and further in view of U.S. Patent No. 4,519,266 to Reinecke. These rejections are respectfully traversed.

I. The Combination of Olmstead and Rosenbaum is Improper

Claim 1 recites, among other features, "a housing on which a control lever is mounted by means of a pivotable joint having two axes about which the control lever can be pivoted."

This structure allows the control lever to be pivoted about its end and has freedom of movement.

The Office Action recognizes that Olmstead does not disclose this feature. In this regard, a stick of a shift transmission such as the one in Olmstead has only very restricted movement paths it can follow, often in the form of a "double-H." In addition, in a mechanical transmission due to the connection to the transmission at its lower end, as evidenced by Olmsted, the shift lever cannot be pivoted in its end region, but has to be pivoted and supported at an intermediate position.

In contrast, the movement range for the claimed electric control device is much larger and not restricted to a specific shape. Also, the end positions of a movement path are relevant for a transmission, whereas all possible positions are relevant for the claimed control device. In addition, Olmstead's transmission demands a significantly different way of supporting the lever than the claimed subject matter. Thus, a person skilled in the art would not have been motivated to combine Olmsted's mechanical transmission teachings in the context of the claimed subject matter.

The Office Action asserts that Rosenbaum cures at least the above deficiencies of Olmsted. Rosenbaum describes a jointed coupling for the transmission of power between revolving parts in particular in the drive of rolls (see column 1, lines 1-10).

However, because Olmsted discloses a shift lever for a transmission, a person of ordinary skill in the art would not have been motivated to combine Olmsted with the jointed coupling between revolving parts of Rosenbaum.

In addition, the essential idea of Olmsted is to use flat washer-like flat springs to bias the shift lever to a neutral position (see Olmsted, at e.g., column 1, lines 5-10, column 1, line 67 to column 2, line 3 and column 2, lines 36-47). However, the joint coupling shown in Rosenbaum cannot be used with the flat springs 12 shown in Fig. 4 of Olmsted, as

Rosenbaum does not provide enough space to arrange such springs close enough to the bolt 10 (which seems to be the closest equivalent to rocking shaft 54 of Olmsted which the flat springs affect to bias the shift lever, see column 4, lines 38 to 45 and column 6, lines 24 to 32 in conjunction with Fig. 3) to effectively bias it.

Furthermore, the arrangement of Rosenbaum provides rounded surfaces which would disperse forces from flat springs working on them such that they could not effectively bias the Rosenbaum joint to a neutral position. The setup of Rosenbaum thus is unsuited for a system providing a bias using the flat springs disclosed in Olmsted. Consequently, because a person of ordinary skill in the art would have to deviate from the central teaching of Olmsted to accommodate the joint as shown in Rosenbaum, a person skilled in the art would have had no reason to combine Olmsted and Rosenbaum in the asserted manner.

In addition, Olmstead, Rosenbaum and the claimed subject matter are non-analogous art. First, they are in entirely different fields of art. Claim 1 is directed to a manually operated electric control device, e.g., a joystick. Olmstead, as discussed above, is directed to the use of springs to bias a shift lever. Rosenbaum is directed to a jointed coupling for the transmission of power between revolving parts, in particular, in the drive of rolls (see Rosenbaum at col. 1, lines 1-10). Second, Olmstead and Rosenbaum do not solve the problems of shift levers and power transmission in any way that is applicable to the claimed subject matter. Olmstead's transmission demands a significantly different way of supporting the shift lever than the claimed subject matter. Rosenbaum's coupling to transfer mechanical force between two shafts does not address the problems that are addressed by the claimed subject matter.

In view of the technical and functional incompatibilities between Olmstead and Rosenbaum, the Office Action could have only arrived at the legal conclusion of obviousness through impermissible hindsight.

For at least the above reasons, it would not have been obvious to combine Olmstead with Rosenbaum in the asserted manner.

A similar reasoning holds for Paul (US Patent No. 1,548,382) and Winsen (US Patent No. 3,066,032), which are not relied upon by the Office Action. Paul describes a construction to connect pistons and rods (see column 1, lines 10 to 21 of Paul). Winsen shows a ball joint connection (see column 1, lines 10 to 19 of Winsen). Both Paul and Winsen do not refer to the technical field of either Olmsted or the claimed subject matter. Moreover, similar to Rosenbaum, Paul and Winsen show arrangements that are particularly unsuitable for a combination with the spring arrangement shown in Olmsted.

II. The Applied References Do Not Disclose And Would Not Have Rendered Obvious Detecting The Position Of The Lever And Generating A Control Signal

Claim 1 recites, among other features, "A manually operated electric control device ... wherein the position of the control lever can be detected by a sensing technology for generating a control signal." The Office Action asserts that Olmstead discloses this feature.

Olmsted discloses a shifter for an automotive transmission to be used in gear shifting that has a shift lever with a tip at its lower end. The tip actuates linkage of the transmission for changing a drive ratio (see Olmstead at column 3, lines 47 to 59 and column 4, lines 7 to 12). Thus, Olmstead discloses a mechanical connection to the transmission.

However, the claimed subject matter is directed to a manually operated electric control device. For example, an exemplary embodiment is a joystick. Thus, Olmstead is directed a different technical field than the claimed subject matter.

In addition, Olmsted discloses a shift lever mechanically connected to a linkage of a transmission. Olmstead does not disclose detecting the position of the lever. Also, Olmsted is silent as to generating a control signal. In particular, neither Fig. 3, which the Office Action specifically refers to, nor the related part of the description of Olmsted provides any